

REMARKS

Claims 1-12 are all the claims pending in this application. Applicant has added new claims 11 and 12 in order to more fully cover various aspects of Applicant's invention, as disclosed in the specification.

I. Drawings

The Drawings are objected to because of an informality. Applicant herein amends the Drawings to correct the informality, and the objection should be withdrawn.

II. Specification

The Abstract of Disclosure and the Disclosure are objected to because of informalities.

Applicant herein corrects the informalities, and accordingly, this objection should be withdrawn. Applicant notes that because of the nature of the amendments to the specification, Applicant has submitted a Substitute Specification in compliance with 37 C.F.R. § 1.52(a)-(b) and 37 C.F.R. § 1.125(b), and no new matter has been added to the Substitute Specification.

Applicants believe all appropriate corrections have been made, but it is noted that the application as filed included no paragraph numbers, so there is some ambiguity in the manner used by the examiner to identify the needed corrections.

Regarding the objection to the inclusion of hyperlinks, it is noted that the url address specified at page 4 of the application as filed is not a hyperlink or browser executable code. It is an internet address, similar to citing an author, conference proceeding, publishing house, etc.. There is no embedded hyperlink. A minor edit has been made to it to make sure it is not usable as a hyperlink.

III. Claim Rejections - 35 U.S.C. § 112

The Examiner rejected claim 8 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The Examiner maintained that, in claim 8, the meaning of “position measurement conditions” is not defined in the body of the specification. This rejection is respectfully traversed. Position measurement conditions are described in a number of places in the specification, particularly at page 3, and more particularly at the bottom of page 3 where conditions such as accessibility of an area or weather conditions are discussed, and the bottom of page 8 where performing measurements at various speeds is discussed. These are clearly only examples, but they are sufficient to make it clear what claim 8 is describing, and withdrawal of the rejection is requested.

IV. Claim Objections

The Examiner objected to claims 3 and 4 for improper dependency, and objected to claims 1, 2, 4, 6, 7, 9, and 10 because of informalities.

The claims have been amended to address the Examiner’s concerns, and accordingly, the claim objection should be withdrawn.

V. Claim Rejections - 35 U.S.C. § 101

The Examiner rejected claim 9 under 35 U.S.C. 101 because of the wording used to describe the claimed invention.

Applicant herein amends claim 9 for clarification purposes, and accordingly, the rejection should be withdrawn.

VI. Claim Rejections - 35 U.S.C. § 102

The Examiner rejected claims 1 and 2 under 35 U.S.C. 102(b) as allegedly being anticipated by Green, Jr. (U.S. Patent 5,926,133). Applicant traverses the § 102 rejection.

The Examiner posited that Fig. 3 of Green is a first measurement area, with first sub-areas defined by a predetermined grid. Additionally, the Examiner indicated that the col. 5, lines 34-48 teaches performing position measurements by means of the position measurement method in at least a sub-set of the first sub-areas.

The cited portion of Green is referenced below:

Preferably, the transponders selected are those in the general vicinity of the rover 16. Determination of the general vicinity requires a preliminary position determination which may be done by, e.g., performing a coarse position determination using one or more of the aforementioned AOA, TOA, or TDOA techniques without the benefit of the signals from the transponders 12, using a different relatively low-resolution location technique, or simply defining the general vicinity as a predetermined area around the base station 14. Alternatively, the base station 14 may send the wake-up call to all transponders within its communication area. Further, the base station 14 need not send the wake-up call to all targeted transponders 12 itself, and it may instead send requests to other base stations 14 close to it to issue some of the wake-up calls. (Green col. 5, lines 34-48.)

Applicant submits that the above passage does not explicitly define a sub-set of the first sub-areas, as recited in claim 1. Just because certain transponders 12 are selected in the vicinity of rover 16 (as the transponders 12 may be an area near base station 14) does not mean that Green defines a sub-set for determining measurements errors. That is, having a group of

transponders 12, in the general vicinity of rover 16, does not make that group a sub-set of the sub-areas. Also, using the various techniques for determining a coarse position does not define a sub-set, either. Therefore, Green fails to teach or suggest performing position measurements by means of the position measurement method in at least a sub-set of the first sub-areas, as recited in claim 1.

Indeed, even assuming, *arguendo*, that coverage area 10 defines first sub-areas in the first measurement area by applying a predefined grid on the first measurement area, Green does not teach that a sub-set is further defined from the grid in coverage 10. (Fig. 3.) At best, Green teaches that a group of transponders 12, overlapping the alleged sub-areas, is randomly selected based on the location of rover 12. Consequently, if rover 12 were in a different location, a different group of transponders 12 in the vicinity would be selected to send a signal to base station 14. In other words, no sub-set of the alleged sub-areas is defined in Green. As a result, Applicant submits that Green fails to teach or suggest at least performing position measurements by means of the position measurement method in at least a sub-set of the first sub-areas, as recited in claim 1.

For the foregoing reasons, Green does not anticipate the subject matter of claim 1. Thus, the § 102 rejection of independent claim 1 and its dependent claim 2 should be withdrawn.

VI. Claim Rejections - 35 U.S.C. § 103

Claim 3

The Examiner rejected claim 3 under 35 U.S.C. 103(a) as allegedly being unpatentable over Green, Jr. (U.S. Patent # 5,926,133) in view of Spirito M A et al. (Preliminary experimental results of a GSM mobile phones positioning system based timing advance).

Green is deficient vis-à-vis independent claim 1. Spirito, applied for its teaching regarding field tests conducted in rural and urban/suburban areas, does not compensate for the deficiencies of Green. Even combined, the teachings of Greed and Spirito fail to render obvious claim 1. Therefore, claim 3 is at least allowable by virtue of its dependency.

Claim 4

The Examiner rejected claim 4 under 35 U.S.C. 103(a) as allegedly being unpatentable over Green, Jr. in view of Sendonaris et al. (U.S. Patent # 6,141,552).

Green is deficient vis-à-vis independent claim 1. Sendonaris, applied for its teaching regarding an alleged third measurement area, does not compensate for the deficiencies of Green. Even combined, the teachings of Greed and Sendonaris fail to render obvious claim 1. Therefore, claim 4 is at least allowable by virtue of its dependency.

Further, regarding claim 4, Sendonaris does not teach or suggest that the alleged third measurement area is a measurement area as disclosed in the antecedent requirement of claim 1, and Sendonaris fails to teach or suggest that providing a measurement route for each one of the measurement areas, each one of the measurement routes having a length of a multiple of the square root of the respective measurement area, as recited in claim 4.

First, as an initial matter, the combined teachings of Green and Sendonaris do not teach or suggest that Fig. 2 of Sendonaris is a third measurement area. Sendonaris describes Fig. 2 as a network 102 with cells 202 in urban areas smaller and denser than cells 204 in rural areas, where the cells are routed to specific switches within the network to minimize the number of expected inter-switch handoffs. (Sendonaris, col. 3, lines 55-64.) Sendonaris, however, does not specifically state that the midsize cells are considered to be a third measurement area. (Sendonaris, Fig. 2.) Moreover, no position measurement is taught for the alleged third measurement area (Fig. 2), which is an antecedent requirement of claim 4. Therefore, even when the references are combined, there is no teaching or suggestion of an additional third measurement area having the predefined number of neighboring third cells, nor of third sub-areas in the third measurement area, as recited in claim 4.

Second, the Examiner has failed to address whether Sendonaris teaches or suggests providing a measurement route for each one of the measurement areas, where each one of the measurement routes has a length of a multiple of the square root of the respective measurement area, as recited in claim 4, and indeed, Sendonaris fails to teach or suggest the same.

Third, Applicant submits that the Examiner has improperly combined the references and has engaged in impermissible hindsight because the Examiner has failed to put forth a valid motivation to combine the teachings of Green and Sendonaris. The Examiner maintained that the invention of Sendonaris provides Green with an improved system of circumscribed “areas that are of intermediary size of that of the first and second class areas and leaving no gaps in the network between the first and second class areas [emphasis added].” (Office Action, page 11.)

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In Green, however, to determine the position of rover 16, base station 14 sends a “wake up” call to transponders 12 in the general vicinity of rover 16 (Green, col. 5, lines 29-35) and therefore, there are no gaps in the coverage area and there is no benefit in having the midsize cells as taught by Sendonaris. As there is nothing in either references which suggests any motivation for, or the desirability of, an improved coverage by intermediary size cells, the skilled artisan would not combine Green with Sendonaris in the manner espoused by the Examiner.

For the foregoing reasons, claim 4 is not rendered obvious by the combined teachings of Green and Sendonaris. Therefore, the § 103 rejection of claim 4 should be withdrawn.

Claim 5

The Examiner rejected claim 5 under 35 U.S.C. 103(a) as allegedly being unpatentable over Green, Jr. in view of Sendonaris as applied to claim 4 above and further in view of Spirito M A et al. (Preliminary experimental results of a GSM mobile phones positioning system based timing advance).

Green is deficient vis-à-vis base claim 1, and the combination of Green and Sendonaris is deficient vis-à-vis claim 4. Spirito, applied for its teaching regarding field tests conducted in rural and urban/suburban areas, does not compensate for the deficiencies of Green and Sendonaris. Therefore, claim 5 is allowable at least by virtue of its dependency, and the §103 rejection should be withdrawn.

Claims 6 and 7

The Examiner rejected claims 6 and 7 under 35 U.S.C. 103(a) as allegedly being unpatentable over Green in view of Sendonaris, and further in view of Walczak et al. (U.S. Patent Application Publication # 20020098851).

The combination of Green and Sendonaris is deficient vis-à-vis base claim 1. Walczak, applied for its teaching regarding location, position, speed, and velocity, does not compensate for the deficiencies of Green and Sendonaris. Therefore, claims 6 and 7 are patentable at least by virtue of their dependency, and the §103 rejection should be withdrawn.

Claims 9 and 10

The Examiner rejected claim 9 and 10 rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Sendonaris et al. in view of Tayloe et al. (U.S. Patent # 5,095,500).

Regarding claim 9, the Examiner has conceded that that Sendonaris is deficient vis-à-vis claim 9. The Examiner indicated that Tayloe teaches providing a measurement plan for the first and second measurement areas in col. 4, lines 62-68, col. 5, lines 1-11, and he noted that monitoring is considered as a measurement plan.

The referenced portion by the Examiner is below:

...coverage area boundaries, signal strength contours, areas having no electromagnetic coverage, areas having poor signal quality, areas providing poor overlap, areas experiencing high handover failures, areas experiencing electromagnetic interference, traffic density distribution, average timeslot utilization, and average channel holding time are all readily ascertainable from monitoring subscriber calls. In addition, monitoring will reveal the effect dynamic power control has on the various mobile units. Dynamic power control is the ability the base station has to

command the mobile unit to vary its transmission power as it nears the base.

Monitoring is performed at each base station via units 102, 107, and 122, which according to the present invention are modified mobile units possessing additional measuring capabilities. These devices are employed to report on the base station's ability to properly process cellular calls. (Tayloe, col. 4, lines 62-68, col. 5, lines 1-11)

The monitoring, in Tayloe, is not for providing a measurement plan for the first and second measurement areas, where planning of position measurements is for the purpose of determining a quality measure of a position measurement method, as recited in claim 9. Tayloe notes that the "base station monitors the signal quality of this call and collects information relevant to the communication system's actual performance from the mobile unit's perspective" (col. 2, lines 52-55), which is then processed so that "the system operator can quickly and efficiently identify deficiencies and take the necessary corrective actions" (col. 2, lines 63-65). The monitoring is for improving the quality of a cellular call, but not for determining the quality measure of a position measurement. Moreover, the monitoring described, in Tayloe, neither explicitly nor implicitly reads on the above-identified features of claim 9. Even the combined teachings of Sendonaris and Tayloe fail to teach or suggest the above-identified features of claim 9.

For at least the foregoing reasons, claim 9 is not rendered obvious by the teachings of the combined references. Accordingly, the § 103 rejection of claim 9 should be withdrawn.

Regarding claim 10, Tayloe fails to teach or suggest at least a means for providing a measurement plan for the first and second measurement areas. Similar to the discussion above for claim 9, the monitoring described in Tayloe does not read on the identified subject matter of

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claim 10. For the foregoing reasons, Tayloe does not render claim 10 obvious. Accordingly, the § 103 rejection of claim 9 should be withdrawn.

VII. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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AMENDMENTS TO THE DRAWINGS

Please delete the current Figure 1 and replace with the new, revised Figure 1.

Attachment: 1 Replacement Sheet